The Asia and Pacific region maintains healthy economic growth outlook. Excluding high-income economies, the region will grow at 6.0% this year and 5.8% in 2019. However, risks remain tilted to the downside with international trade conflicts escalating and elevated debt levels exposing the region’s financial vulnerability as United States (US) monetary policy normalization continues. While volatility of net capital flows across equity, foreign direct investment (FDI), and financial derivatives have declined since 2016, volatility in net debt investment flows increased, reflecting the potential spillovers from US interest rate hikes. With greater economic interdependence and integration contributing to faster transmission of global economic shocks, the region’s policy makers should closely monitor the risks rising from global trade and financial market conditions, while remaining vigilant to safeguard financial and economic stability.

The Asia-Pacific Regional Cooperation and Integration Index shows a modestly growing trend in regional integration with positive growth impact. In 2017, the Asian Economic Integration Report of the Asian Development Bank (ADB) unveiled a new composite index—the Asia-Pacific Regional Cooperation and Integration Index (ARCII)—to gauge the degree of regional cooperation and integration in Asia. This year’s report presents the extension of the ARCII using a panel data set—the time series ARCII shows a broadly steady, yet modestly strengthening, trend of regional integration in Asia over 2006–2016. Infrastructure and connectivity appear to be the most forceful and stable foundation for regional integration in Asia. Over time, trade and investment have strengthened as a major contributor to regional integration. An empirical exercise reveals that regional value chain, movement of people, and institutional and social integration have been significant drivers of economic growth, while overall regional integration helped reduce poverty.

1 Asia refers to the 48 Asia and the Pacific members of ADB, including the region’s three advanced economies—Australia, Japan, and New Zealand, while developing Asia refers to ADB’s 45 developing member economies.
Asia’s integration at a glance (intraregional shares, %)

<table>
<thead>
<tr>
<th></th>
<th>Trade</th>
<th>FDI</th>
<th>Equity</th>
<th>Debt</th>
<th>Migration</th>
<th>Tourism</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>53%</td>
<td>47%</td>
<td>12%</td>
<td>8%</td>
<td>43% (2000)</td>
<td>74%</td>
</tr>
<tr>
<td>2017</td>
<td>58%</td>
<td>50%</td>
<td>18%</td>
<td>16%</td>
<td>35%</td>
<td>78% (2016)</td>
</tr>
</tbody>
</table>

FDI = foreign direct investment (flows data), Equity = equity asset holdings (stock data), Debt = debt asset holdings (stock data).

Note: Where 2017 data are not available, the latest year for available data is indicated in parentheses (year).

Sources: ADB calculations using data from Association of Southeast Asian Nations Secretariat, International Monetary Fund, Organisation for Economic Co-operation and Development, United Nations Conference on Trade and Development; United Nations Department of Economic and Social Affairs, Population Division; United Nations World Tourism Organization; World Bank; and national sources.
Asia continues to lead a recovery in world trade with further strengthening in its intraregional trade in 2017. In 2017, Asia’s trade (by volume) grew faster than global trade and surpassed its own economic growth for the first time since 2012. Asia’s trade growth accelerated to 7.1% in 2017 from 1.7% in 2016 while world trade growth grew 4.7% from 1.8%. Asia’s intraregional trade share—measured by value—also rose to 57.8% in 2017 from 57.2% in 2016—above the average 55.9% during 2010–2015. The simultaneous recovery in global and regional trade can be attributed to the expansion of the global value chain (GVC)—after a continued slowdown since 2012—with Asia’s GVC participation rebounding as well.

Escalation of international trade conflict can undermine continued recovery of global and regional trade. The most imminent downside risk to the Asian economy comes from the rise in trade measures from the US and countermeasures from the People’s Republic of China (PRC). In fact, international trade conflicts have escalated substantially since the beginning of this year, particularly with the tariffs and countermeasures between the US and the PRC amounting to 25.0% tariff on $50.0 billion worth of each other’s imports as of August. Asia’s trade growth (by volume) also eased slightly to 6.1% during the first 7 months of 2018. While the direct impact of the new tariffs implemented thus far is estimated to be small, uncertainty about future tariff rates and trade policy could dampen the recovery momentum in global trade. While the region’s trade growth can also be affected through potential second-round effect on global supply chains, the real damage could be the impact of trade policy uncertainty on business and consumer confidence, adversely affecting capital spending and other investment decisions.
Goods are increasingly moving back and forth across borders through value chain linkages—hints at better GVC prospects for the region.

Note: The GVC participation rate is measured by the share of value-added contents of gross exports used for further processing through cross-border production networks. It is computed as the ratio of GVC exports (gross exports less domestic value added in final goods exports data from 2010 to 2017) to gross exports.

Despite a slowdown in inward FDI to Asia, intraregional FDI continues to rise. Global FDI into the region (measured by gross inward FDI) remains stable at $517.5 billion in 2017 from $519.9 billion in 2016—yet the region's share of global inward FDI rose to 36.2% in 2017 from 27.8% in 2016. Intraregional FDI increased slightly by both absolute value (to $260.0 billion in 2017 from $254.7 billion in 2016) and by share (to 50.2% from 49.0%). Greenfield investments generated some 667,000 jobs in 2017—mainly in India, the PRC, Viet Nam, the Philippines, and Singapore—in real estate, software and information technology (IT) services, and electronic components, among others. Almost half of jobs created through greenfield investments in Asia originated within the region—led by investments from Japan (28.0%), the PRC (15.0%), and the Republic of Korea (14.2%).

Asia’s outward FDI moderated by 1.4% in 2017—to $487.9 billion from $494.9 billion in 2016. Asia’s global share of outward FDI reached 34.1% in 2017, up from 33.6% in 2016. Japan; the PRC; and Hong Kong, China were among the world’s top 10 global investors. Japan was second globally, investing $160.4 billion—30.6% invested in Asia. The PRC’s outward FDI slowed by 36.5% from 2016, to $124.6 billion. Emerging Asian investors boosted outward FDI in 2017—with, for example, India doubling its outward investments in sectors such as electronic components and rubber, and Thailand increasing by more than 50% in building and construction material and chemicals, among others.
Greenfield FDI creates jobs in Asia

667,039
Number of jobs created in 2017
by greenfield FDI in Asia

46.2%
Greenfield jobs created
by intraregional FDI

Jobs created by intra-Asia FDI, by source, 2017

<table>
<thead>
<tr>
<th>Source</th>
<th>Jobs Created</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>28.0%</td>
</tr>
<tr>
<td>People’s Republic of China</td>
<td>15.0%</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>14.2%</td>
</tr>
<tr>
<td>Taipei, China</td>
<td>13.4%</td>
</tr>
<tr>
<td>Singapore</td>
<td>9.0%</td>
</tr>
</tbody>
</table>

FDI jobs created per project in Asia, 2017

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Jobs Created</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian FDI</td>
<td>302</td>
</tr>
<tr>
<td>non-Asian FDI</td>
<td>178</td>
</tr>
</tbody>
</table>

FDI=foreign direct investment.
Financial Integration

Inward portfolio (equity and debt) investment to Asia increased sharply in 2017, driven by a surge in inward equity investment; but the pace will likely moderate in 2018 due to the regional equity markets’ relatively tepid performance. International holdings of Asian portfolio equity assets increased by $1.3 trillion in 2017, exceeding the total increase of $954.0 billion over the past 4 years combined. The majority of the surge in 2017 can be attributed to increased inward equity investment by the US ($606.2 billion) and the European Union (EU) ($368.3 billion),2 with the intraregional share edged down to 15.1%. Ample global liquidity, favorable economic conditions in the region, and investors’ appetite for positive equity returns from Asia based on buoyant market performance in 2017 were behind the boost. International holdings of Asian portfolio debt assets also increased by $390.4 billion in 2017, of which $138.7 billion can be attributed to the investment by the rest of the world (excluding the EU and the US), primarily in Japanese debt securities ($78.1 billion), while the intraregional share remains generally stable at 25.5%. However, Asia’s cross-border bank liabilities decreased by $107.9 billion in 2017, mainly due to a contraction of bank claims by the EU and the US on Asia—by $78.5 billion from the EU and $42.0 billion from the US—in tandem with the progress in US monetary policy normalization. The intraregional share of Asia’s cross-border bank liabilities stands at 27.2%.

Asia’s outward portfolio investment and bank claims continue to grow; while the intraregional shares of Asia’s international portfolio debt holdings and bank claims have increased, that of its international portfolio equity holdings has decreased. Asia’s portfolio investors continue to invest outside the region, with intraregional shares of outward equity (debt) investment below 20%—at 18.1% (16.4%) in 2017 from 19.3% (15.3%) in 2016. Asia’s outward equity investment outstanding rose to $4.5 trillion from $3.5 trillion. Outward debt investment outstanding by Asia was $4.2 trillion in 2017, up from $3.9 trillion in 2016—driven largely by a rise in Asian holdings of debt securities issued by regional economies ($92.6 billion) and the

2 Japan ($285.3 billion), the Republic of Korea ($134.5 billion), and the PRC ($112.3 billion) were among the major beneficiaries of the inward equity investment by the US and the EU in 2017.
rest of the world ($96.2 billion), excluding the EU and the US. Asia’s outstanding cross-border bank claims reached $4.6 trillion in 2017, up from $4.4 trillion in 2016, given the sizable upturn in global international banking activities in 2017. The increase was predominantly driven by growing overseas bank lending by Japanese banks—the largest foreign lenders globally. The region’s demand for cross-border bank financing is increasingly met regionally, as the intraregional share of Asia’s cross-border bank claims rose from 18.2% in 2012 to 22.6% in 2017.

**Uncertainty surrounding the changes in global financial conditions has led to rising sensitivity to global shocks in Asian equity and bond markets.** Both local bond and equity returns have become more sensitive to global shocks since the US monetary policy normalization began. This increasing vulnerability to external shocks is further underpinned by an elevated exposure to international investors, especially from outside the region, whose holdings of Asian portfolio assets grew between 2016 and 2017 from $3.4 trillion to $4.5 trillion in equity and from $1.7 trillion to $2.0 trillion in debt.
Asia continues as the largest source of international migrants globally although the number of Asian migrants headed to regional destinations declined slightly. The global stock of international migrants from Asia rose 3.9% from 83.6 million in 2015 to 86.9 million in 2017. About one in three international migrants are from Asia led by India and the PRC. The number of international migrants residing in Asia also grew by 1.4%—from 41.8 million to 42.4 million, with more than 70% of them from the region. While Australia tops the list of Asian countries hosting international migrants, India, and Thailand attract the most migrants from their respective subregions, South Asia and Southeast Asia. Outbound migration to the non-regional destinations surpasses intraregional migration, as the region’s skilled and unskilled migrant workers continue to favor developed countries and the Middle East over regional host economies. Nevertheless, the region is expected to employ a growing number of migrants as many Asian economies face rapid aging and a declining workforce. As the global economy strengthened its recovery, remittances to Asia surged—to a record $272.5 billion in 2017.

Tourism continues to grow, both within and outside the region. Tourist arrivals in Asia reached 378.5 million in 2016, up 9.3% over 2015 and well above the 3.7% global growth. The vast majority (78.0%) of international tourism in Asia is intraregional—the number of intraregional Asian tourists grew from 235.0 million to 295.3 million between 2012 and 2016. The PRC is by far the most popular destination of Asian tourists, followed by Macau, China; Malaysia; and Thailand. With growing per capita income, Asian tourists heading to non-Asian destinations have grown as well over the past 5 years. Those traveling outside Asia increased 18.6% (16.1 million) to 102.3 million—below the 25.7% growth (60.4 million) in intraregional tourism. International tourism receipts in the region reached a record $346.0 billion in 2016, 5.3% higher than 2015. East Asia and Southeast Asia earned the most from tourism in absolute terms. However, Maldives tops the list of countries most dependent on tourism, with receipts accounting for 68.0% of its gross domestic product (GDP) in 2016.

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3 The PRC (5.2 million), the Russian Federation (3.8 million), Bangladesh (3.7 million), and India (3.3 million) are among the top source countries of international migrants to Asia.
With growing economic interdependence and integration, the region increasingly faces development challenges that are transnational in nature, such as infrastructure connectivity within the region, environmental degradation and resource scarcity, and transnational health threats or infectious diseases. Regional public goods (RPGs) such as cross-border infrastructure, sustainable management of shared natural resources, and cross-border disease surveillance and control offer benefits beyond a single nation’s territory. While the provision of such RPGs can be shared by multiple countries in the region, collective action by all countries in the region can create spillover effects across the region that are greater than the sum of voluntary contributions by individual countries. On the other hand, independent actions from each nation with different interests may not generate the adequate supply of regional public goods to capture their transnational benefits and/or tackle these challenges at the regional level.

Regional arrangements can encourage collective action. Even in the provision of global public goods such as control or elimination of malaria, regional arrangements can complement the global frameworks and help more effective implementation. With fewer nations involved, they reduce uncertainty and take advantage of spatial and cultural proximity in supplying global and regional public goods collectively. In this context, past and ongoing interactions among a smaller group of regional economies facilitate compliance with international arrangements.

However, the challenges in providing RPGs arise from the difficulty of attributing their benefits to specific individual contributions. Quantifying the total benefits of RPGs is extremely difficult given the externalities and spillovers, but it is even more difficult to identify (and estimate the amount of) specific benefits enjoyed by all individual countries. Ideally, if one can identify who benefits and how much from the provision of RPGs, then one can charge each benefit recipient the marginal cost of provision. However, by the nature of public goods, it is very difficult, if not impossible, to exclude individual countries from enjoying the benefits of RPGs once provided. The boundary for the benefits of regional public goods is also difficult to define, as the spillover range to which the RPG benefits reach would not be easily identified. The
scope of benefits is often and increasingly unclear with growing cross-border linkages, while even national public goods are becoming increasingly interlinked and challenge the domain of regional and global public goods.

**Conclusions and Policy Considerations**

Understanding how an individual nation’s contribution adds to the overall provision of RPGs can help RPG suppliers, including nations and multilateral development banks alike, take the most appropriate modes of provision to avoid the collective action problem. While all regional economies would be better off cooperating to provide RPGs, conflicting interests among them and the cost associated with provision often discourage mutual cooperation—so called “collective action problem.” In this context, the application of appropriate “aggregation technologies” (that is how individual contributions add up to make the socially available level of the public good) provides the right incentives for collective action to ensure sufficient provision of RPGs.

- For example, when the sum of each nation's contribution would make the overall supply of the RPG, policy intervention should focus on preventing free riding. An example for this type is reducing greenhouse gas emissions. The sum of each contributor’s emission reductions would make the overall reduction of the greenhouse gas emissions. The more countries participate and contribute to the emission reduction, the greater is the benefit of climate change mitigation. However, a nonparticipating country can easily enjoy the benefit of emission reductions by participating others; therefore, it is important to prevent free riding.

- When the smallest contribution by the most vulnerable determines the available level of RPG, it would be efficient that policy intervention is directed to assist the most vulnerable countries in need of funding and capacity building. This is known as the “weakest link.” An example for this type would be prevention and control of communicable diseases such as malaria.

- When the largest contribution by the leading country determines the available level of RPG, policy support is better dedicated to a leading country with a commitment and ability. This is the “best shot” type. For example, development of vaccines would have the best chance of success if the most technologically advanced country takes a lead.

**Regional experiences highlight the important roles of regional institutions in facilitating regional cooperation and coordination, collective action, and complementarity among national, regional, and global efforts in providing adequate level of RPGs.**

- European experiences show that the provision of RPGs can be led and coordinated by regional institutions, including common legislation and regulations. For example, the EU tries to achieve a fully integrated energy system for the region to ensure energy security such as stable energy supply and affordable prices. The experience illustrates that the EU-wide legislation together with the cooperation of national energy regulators made significant contributions to the progress toward the integrated energy system.

- The experience of Latin America and the Caribbean illustrates the importance of sequencing and innovations for collective action to promote regional cooperation and facilitate RPG provision. For many Latin American and Caribbean countries, trade
How individual country’s contributions add up to ensure sufficient level of regional public goods

**Summation**
the sum of each nation’s contribution makes the overall supply of RPG

**Policy support:**
focus on preventing free riding

**Best shot**
the largest contribution by the leading country determines the available level of RPG

**Policy support:**
dedicated to a leading country with commitment and ability

**Weakest link**
the smallest contribution by the most vulnerable determines the available level of RPG

**Policy support:**
assist the most vulnerable (funding and capacity building)
integration has been a common policy priority. Therefore, pursuing trade integration provides an effective first step to foster provision in other related RPG sectors such as cross-border infrastructure. Also helpful in promoting collective action was the adoption of an innovative approach to form a new group for economic cooperation such as the Pacific Alliance based on mutual interests rather than geographic proximity.

- **Experiences in Asia stress the need for regional approaches to tackling common issues that can complement national and global efforts.** For example, the development of the early warning system for tsunamis across the Indian Ocean has improved detection and reporting of disasters significantly, which was complemented by national efforts such as communication and trained responses. Like malaria control in the Greater Mekong Subregion, a stronger regional response could also improve the effectiveness in the prevention of communicable disease outbreaks both regionally and globally.

**Developing economies are generally aware of the benefits of RPGs, but view it difficult to contribute to RPG provision.** The provision of RPGs by developing economies is often hampered by: (i) the difficulty in striking a balance between national and regional interests in development priorities, (ii) the perception of benefits being potentially unequal among contributing economies, and (iii) a shortage of financial resources and capacity to meet the demands for RPGs.

- **Collective action can be promoted if national development priorities align with the need for RPGs.** For example, when a group of countries share better infrastructure connectivity as their respective national development policies, coordinating more cross-border infrastructure investment can be easily facilitated. As such, the region can benefit from having a mechanism in place to share information on national development priorities and the benefits of RPGs among regional stakeholders.

- **It is important to develop better measures to estimate the spillover benefits of RPGs while making more effort to identify potential beneficiary countries who are yet to be included in the group of RPG suppliers.** The perception of free riding and lack of understanding of specific benefits enjoyed by each individual country deter developing countries from making their contributions toward RPGs. More effort to identify and place a value on shared regional benefits, in addition to more information about clear benefits for each individual country, should be made. A guideline or criteria for the design of regional projects with appropriate methodologies to measure their full benefits would further help providers and beneficiaries of RPGs alike.

- **Multilateral development banks can help increase RPG provision via reducing knowledge and financing gaps as well as playing the role of an honest broker to enhance mutual trust and facilitate regional cooperation for the provision of RPGs.** Multilateral development banks (MDBs) that have been active in RPG provision often reinforce by providing technical support and capacity building where needed. In addition, they can help facilitate RPG provision of their member economies by strengthening knowledge and information sharing on the benefits and the costs of provision. The strengths of MDBs also build on effective coordination and their role as an honest broker with their accumulated social capital from member countries and local communities. Their in-depth knowledge and experiences in multiple countries and sectors allow a more holistic and integrated approach to address regional and subregional development challenges and hence promote regional cooperation for RPG provision that can complement national efforts.
Asian Economic Integration Report 2018 Highlights

The Asian Economic Integration Report (AEIR) is an annual review of Asia’s regional economic cooperation and integration. It covers the 48 regional members of the Asian Development Bank. The AEIR 2018 includes a theme chapter on Toward Optimal Provision of Regional Public Goods in Asia and the Pacific.

About the Asian Development Bank

ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 67 members—48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.